

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) A node supporting message transport and segmentation in a communications network having a plurality of nodes, comprising:
a memory including a database for storing a plurality of segmentation support capability test results, wherein the memory further includes a program module adapted to send a first segmented message, a first segmentation support test message, and a first segmentation support response message, and to receive a second segmented message, a second segmentation support test message, and a second segmentation support response message.

2. (Original) The node of Claim 1, wherein the node is selected from the group consisting of a service switching point, a signal transfer point, or a service control point.

3. (Original) The node of Claim 1, wherein the second segmented message is a Signaling Connection Control Part (SCCP) message including a Segment Number Field coded with a value indicating the number of segmented messages remaining to be received by the node.

4. (Original) The node of Claim 1; wherein the segmentation support test and response messages are Transaction Capability Application Part (TCAP) messages.

5. (Original) A system supporting message transport and segmentation in a communications network having a plurality of nodes, comprising:

a first node having a memory including a database for storing a plurality of segmentation support capability test results, wherein the first node is adapted to send a segmented message and a segmentation support test message, and to receive a segmentation support response message; and

a second node in electronic communication with the first node, wherein the second node is adapted to receive the segmented message and the segmentation support test message, and to send the segmentation support response message.

6. (Original) The system of Claim 5, wherein the first node and second nodes are each selected from the group consisting of a service switching point, a signal transfer point, or a service control point.

7. (Original) The system of Claim 5, wherein the segmented message is a Signaling Connection Control Part (SCCP) message including a Segment Number Field coded with a value indicating the number of segmented messages remaining to be received by the second node.

8. (Original) The system of Claim 7, wherein the segmentation support test and response messages are Transaction Capability Application Part (TCAP) messages.

9. (Original) A method supporting message transport and segmentation in a communications network having a plurality of nodes, comprising the steps of:

sending a first segmentation support test message from a first node to a second node, the first and second nodes selected from the plurality of nodes, the first node comprising a memory including a database for storing a plurality of segmentation support capability test results;

sending a first segmentation support response message from the second node to the first node in response to receiving the first segmentation support test message;

generating a first segmentation support capability test result indicating that the second node is capable of receiving segmented messages; and

sending a segmented message from the first node to the second node.

10. (Original) The method of Claim 9, including the step of recording the first segmentation support capability test result in the database.

11. (Original) The method of Claim 9, including the step of searching the database to determine whether the second node is capable of receiving segmented messages.

12. (Original) The method of Claim 9, including the steps of:
sending a second segmentation support test message from the first node to a third node, the third node selected from the plurality of nodes;
failing to receive a second segmentation support response message sent from the third node to the first node in response to the second segmentation support test message;
generating a second segmentation support capability test result indicating that the third node is not capable of receiving segmented messages; and
sending a non-segmented message from the first node to the third node.

13. (Original) The method of Claim 12, including the step of recording the second segmentation support capability test result in the database.

14. (Original) The method of Claim 9, wherein the first node and second nodes are each selected from the group consisting of a service switching point, a signal transfer point, or a service control point.

15. (Original) The method of Claim 9, wherein the segmented message is a Signaling Connection Control Part (SCCP) message including a Segment Number field coded with a value indicating the number of segmented messages remaining to be received by the second node.

16. (Original) The method of Claim 9, wherein the first segmentation support test and response messages are Transaction Capability Application Part (TCAP) messages.

17. (Original) The method of Claim 9, wherein the first node includes a segmentation capability return result message reception timer, including the steps of:

sending a second segmentation support test message from the first node to a third node, the third node selected from the plurality of nodes;

starting the segmentation capability return result message reception timer counting down to a zero value over a preselected amount of time;

failing to receive a second segmentation support response message sent from the third node to the first node in response to the second segmentation support test message before the segmentation capability return result message reception timer reaches the zero value;

generating a second support capability test result indicating that the second node is not capable of receiving segmented messages; and

sending a non-segmented message from the first node to the third node.

18. (Original) The method of Claim 17, including the step of recording in the second support capability test result in the database.

19. (Original) The method of Claim 17, including the step of searching the database to determine whether the second node is capable of receiving segmented messages.
